List

MATERIAL SAFETY DATA SHEET



THORO SYSTEM PRODUCTS, INC.

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Form No.: MSDS-54-1 Date: 11/20/85

SECTION 1 NAME & HAZARD SUMMARY

Material name:

THOROPATCH™ (Powder only)

Hazard summary (as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200):

Physical Hazards: None

Health Hazards: Based on silica; inhalation (TLV, PEL).

Based on nuisance dusts; inhalation (TLV, PEL), sensitizer (skin).

Based on calcium hydroxide (lime): innitant (eye, skin, respirator)

Based on calcium hydroxide (lime); irritant (eye, skin, respiratory tract), inhalation (TLV,PEL).

Based on silica and nuisance dusts; abrasive (eye, skin), irritant (eye, skin).

AVOID BREATHING DUSTS. AVOID CONTACT WITH EYES AND SKIN.

Read the entire MSDS for a more thorough evaluation of the hazards.

		ACGIH(a)	OSHA
SECTION 2 INGREDIENTS (CAS Number)	% (wt)	TLV	PEL
Silica, crystalline quartz (CAS 14808-60-7)	70-80	(b)	(c)
Calcium hydroxide (lime) (CAS 1305-62-0)	1t 1.0	5mg/m³	None
All other nuisance particulates (dusts) from organic or inorganic sources. No CAS number. (Cement included in this category).	20-30	5mg/m³ (respirable) 10mg/m³ (total)	5mg/m³ (respirable) 15mg/m³ (total)

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. gt = greater than, lt = less than, ca = approximately

SECTION 3 PHYSICAL DATA

Boiling Point: No data available. All ingredients have extremely high M.P. & B.P. Vapor Pressure (mmHg at 20°C): Not applicable. Solid at all service temperatures.

Vapor Density (air = 1): Not applicable.

pH: No data for this mixture. Ingredients are strongly alkaline when mixed with water. Specific gravity: No data for this mixture.

% Volatile by Volume: Not applicable.

Appearance and Odor: Gray powdered solid. No particular odor.

Solubility in water: Slight.

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SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash point (and method): Not applicable. Product will not burn.

Autoignition temp.: Not applicable.

Flammable limits (STP): Not applicable.

Extinguishing media:

Not applicable

Special fire fighting protective equipment:

Not applicable

Unusual fire and explosion hazards:

None

REACTIVITY DATA SECTION 5

Stability:

Product reacts (hydrates) at a slow, controlled rate when mixed with water releasing minimal heat. Not a hazardous reaction.

Incompatibility (materials to avoid):

Strong oxidizing agents such as strong organic and inorganic acids. Acids will react with cement, lime and carbonates.

Hazardous decomposition products:

None

Hazardous polymerization:

Will not occur

SECTION 6 HEALTH HAZARD ASSESSMENT

General:

No toxicity information is available on this specific preparation; this health hazard assessment is based on information that is available on its components.

Ingestion:

No toxic effects are known to be associated with ingestion of this material.

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SECTION 6 HEALTH HAZARD ASSESSMENT (Cont.)

Eye contact:

This material can irritate and may burn eyes following direct contact. The aggregate particles may cause abrasions to the cornea.

Skin contact:

Dryness, itching, rashes and burns can develop following contact with skin. Skin abrasions can occur if material is rubbed against the skin. Dermatitis and skin sensitization can develop after repeated and/or prolonged skin contact.

Skin absorption:

This material is not absorbed through skin contact and no systemically toxic effects are known via this route.

Inhalation:

Product contains crystalline quartz ("free") silica. Repeated inhalation of silica in excess of the TLV over extended periods can result in irreversible fibrosis of the lungs (silicosis). Overexposure to dusts can irritate the respiratory tract and can cause damage to the mucous membranes of the upper respiratory tract.

Other effects of overexposure:

No other adverse clinical effects are known to be associated with exposure to this material.

First aid procedures:

Skin: Rinse skin free of material with water to avoid abrasion of skin DO NOT RUB untiskin is free of material then wash thoroughly with soap and water. If redness, itching, burning or other symptoms develop or persist seek medical attention. Remove and decontaminate clothing and footwear before reuse.

Eyes: DO NOT RUB EYES. Rinse immediately with plenty of water for at least 15 minutes

and consult a physician immediately.

Ingestion: Give one or two glasses of water to drink and refer to medical personnel.

Inhalation: Remove to fresh air. If cough, irritation, difficulty in breathing or other respiratory symptoms persist or develop consult a physician.

Note to Physician: Mucosal injury following ingestion of this material may contraindicate the induction of vomiting in the treatment of possible ingestion.

SECTION 7 SPILL OR LEAK PROCEDURES

Steps to be taken in case material is spilled or released:

Keep unnecessary people away. Follow personal protection procedures (Section 8) when cleaning up spills. Collect spilled powder by dustless methods and place in containers. If necessary, dike spills of mixed material with absorbent material and shovel into waste containers. Avoid generating dusts. Wet material may be slippery Use caution to avoid falls.

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SPILL OR LEAK PROCEDURES SECTION 7

Disposal Method:

Reuse powder or mixed material if uncontaminated. Discarded product and hardened mortar are non-hazardous wastes under RCRA (40 CFR, Part 261). Dispose of as nonhazardous waste in compliance with applicable regulations.

Container disposal:

Empty containers may retain small amounts of residual product. Observe all hazard precautions and personal protection recommendations when handling empty containers. Dispose of as non-hazardous waste in compliance with applicable regulations.

SPECIAL PROTECTION INFORMATION SECTION 8

TLV® or suggested control value:

with good hygiene practice. (See Sections 2,10 for TLV's and PEL's).

Ventilation:

Use local exhaust when possible to keep exposure below OSHA PEL's for silica, portla cement, and nuisance dusts. See 29 CFR, Part 1910, Subpart Z, Section 1910.1000, Table Z-3.

Respiratory protection (specify type):

Where exposure to dusts from this product may exceed the PEL's, a MSHA-NIOSH approved respirator for the applicable dusts should be used. Refer to OSHA standards in 29 CFR 1910.134.

Protective clothing:

Gloves and protective clothing recommended to avoid skin contact.

Eye protection: Full faceshield or chemical tight goggles recommended to avoid splashing in eyes while handling, mixing, placing or as long as splash hazard exists. Safety glasses recommended if grinding, cutting, etc. of hardened material is required.

Other protective equipment:

Provide eyewash station or other suitable means of cleansing eyes and skin in emergencie

SPECIAL PRECAUTIONS OR OTHER COMMENTS SECTION 9

Precautions to be taken in handling or storing: Store in cool dry area off ground. Avoid contact with acids and other oxidizers. Minimize generation of dusts. Avoid skin and eye contact. Avoid breathing dusts. A sensitized individual should not be exposed to the product which causes sensitiza MATERIAL SAFETY DATA SHEET (Cont)

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MISCELLANEOUS INFORMATION SECTION 10

FOOTNOTES:

- Threshold Limit Values and Biological Exposure Indices for (a) Source: 1985-86., American Conference of Governmental Industrial Hygienists, Cincinnati, OH 45211.
- (b) TLV for silica, crystalline quartz:

For respirable dust in mg/m³: % respirable quartz + 2

For total dust, respirable & nonrespirable: $\frac{30 \text{ mg/m}^3}{\text{% quartz} + 3}$

(c) PEL for silica, crystalline quartz:

For respirable dust in mg/m³: 10 mg/m³

 30 mg/m^3 For total dust in mg/m³: % Si02 + 2

> The information herein is given in good faith but no warranty, expressed or implied, is made.

Prepared by: G.T. Schull

Dinector of Health, Safety & Environmental Affairs Title:

Signature:

Date: 11/20/85

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